


WHAT IS CLAIMED IS:

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1. A scratch layer transfer sheet comprising a substrate film and a transferable scratch layer disposed on one surface of the substrate film, the transferable scratch layer comprising a hiding layer, being able to be thermally transferred to the print surface of a transfer-receiving material and being able to be removed from the print surface by scratching it after it is transferred.
2. The scratch layer transfer sheet according to Claim 1, wherein said hiding layer comprises a hiding material and a binder.
3. The scratch layer transfer sheet according to Claim 2, wherein said hiding layer is formed of a heat meltable ink comprising an aluminum pigment, a carbon black, a wax and an ethylene/vinyl acetate copolymer resin.
4. The scratch layer transfer sheet according to Claim 1, wherein the area of one partition of the transferable scratch layer of said scratch layer transfer sheet is in a range from 30 to 150% based on the maximum area of the print surface of the transfer-receiving material to which the transferable scratch layer is to be transferred.
5. The scratch layer transfer sheet according to Claim 1,

wherein said transferable scratch layer after being transferred to the transfer-receiving material has a level of HB or less as the pencil scratch value prescribed in the handwriting method of JIS K 5400.

6. The scratch layer transfer sheet according to Claim 1, wherein said transferable scratch layer further comprises a first peeling layer and has a multilayer structure in which at least said first peeling layer and said hiding layer are disposed in this order from the side close to said substrate film.

7. The scratch layer transfer sheet according to Claim 1, wherein said transferable scratch layer further comprises a pattern layer formed pattern-wise and has a multilayer structure in which at least said pattern layer and said hiding layer are disposed in this order from the side close to said substrate film.

8. The scratch layer transfer sheet according to Claim 7, wherein said pattern layer is provided with pattern comprising a firm name, a logo or a specific mark.

9. The scratch layer transfer sheet according to Claim 7, wherein, when the areas respectively occupied by said pattern layer and said hiding layer are compared with each other, the proportion of the area occupied by the pattern layer (pattern ratio) is in a range from 5 to 85% per 2 cm² of the transferred

~~scratch~~ layer.

10. The scratch layer transfer sheet according to Claim 7, wherein said pattern layer contains at least one binder selected from a wax and a thermoplastic resin and/or a coloring agent.

11. The scratch layer transfer sheet according to Claim 7, wherein said transferable scratch layer further comprises a second peeling layer and has a multilayer structure in which at least said pattern layer, said second peeling layer and said hiding layer are disposed in this order from the side close to said substrate film.

12. The scratch layer transfer sheet according to Claim 1, wherein said transferable scratch layer further comprises an adhesive layer and has a multilayer structure in which at least said hiding layer and said adhesive layer are disposed in this order from the side close to said substrate film.

13. The scratch layer transfer sheet according to Claim 12, wherein said adhesive layer which is primarily constituted of a rubber type resin.

14. The scratch layer transfer sheet according to Claim 13, wherein said rubber type resin is at least one type selected from the group consisting of an ethylene/vinyl acetate copolymer resin, its modified product and a copolymer of an ethylene monomer,

a vinyl acetate monomer and other monomers.

15. The scratch layer transfer sheet according to Claim 1, said scratch layer transfer sheet further comprising a transferable protective layer having a monolayer or multilayer structure provided with a main protective layer protecting a print surface, wherein the transferable protective layer and said transferable scratch layer are alternately provided side by side on said substrate film.

16. The scratch layer transfer sheet according to Claim 15, wherein said main protective layer is primarily constituted of at least a wax or a thermoplastic resin.

17. The scratch layer transfer sheet according to Claim 15, wherein said transferable protective layer further comprises an adhesive layer and has a multilayer structure in which at least said main protective layer and said adhesive layer are disposed in this order from the side close to said substrate film.

18. The scratch layer transfer sheet according to Claim 15, wherein said transferable protective layer further comprises a peeling layer and has a multilayer structure in which at least said peeling layer and said main protective layer are disposed in this order from the side close to said substrate film.

19. The scratch layer transfer sheet according to Claim 1, said scratch layer transfer sheet further comprising a coloring agent transfer layer, wherein the coloring agent transfer layer and said transferable scratch layer are alternately provided side by side on said substrate film.

20. The scratch layer transfer sheet according to Claim 19, wherein said coloring agent transfer layer contains a coloring agent which is optically distinguishable.

21. The scratch layer transfer sheet according to Claim 19, wherein the color of said coloring agent transfer layer is different from the color of said transferable scratch layer.

22. The scratch layer transfer sheet according to Claim 19, wherein said coloring agent transfer layer is a heat meltable ink layer.

23. The scratch layer transfer sheet according to Claim 22, wherein said heat meltable ink layer contains carbon black as a pigment.

24. The scratch layer transfer sheet according to Claim 19, wherein the area of one partition of said coloring agent transfer layer is different from the area of one partition of said transferable scratch layer.

25. The scratch layer transfer sheet according to Claim 1, the scratch layer transfer sheet further comprising a transferable protective layer and a coloring agent transfer layer, wherein the coloring agent transfer layer, the transferable protective layer and the transferable scratch layer are alternately provided side by side on the substrate film.

26. A method of producing a scratch print product comprising steps of:

providing a transfer-receiving material provided with a print surface on which information is recorded in advance;

providing a scratch layer transfer sheet comprising a substrate film and a transferable scratch layer disposed on one surface of the substrate film, said transferable scratch layer comprising a hiding layer, being able to be thermally transferred to the print surface of the transfer-receiving material and being able to be removed from said print surface by scratching after it is transferred; and

overlapping the transferable scratch layer of said scratch layer transfer sheet on the print surface of said transfer-receiving material such that the transferable scratch layer faces the print surface to transfer said transferable scratch layer to the print surface by heating.

27. The method of producing a scratch print product according to Claim 26, wherein said hiding layer comprises at least a hiding material and a binder.

28. The method of producing a scratch print product according to Claim 27, wherein said hiding layer is formed of a heat meltable ink comprising an aluminum pigment, a carbon black, a wax and an ethylene/vinyl acetate copolymer resin as essential components.

29. The method of producing a scratch print product according to Claim 26, wherein said print surface on which information is recorded in advance has a center plane average roughness SPA of 10 μ m or less in the measurement of three-dimensional roughness.

30. The method of producing a scratch print product according to Claim 26, wherein the area of one partition of the transferable scratch layer of said scratch layer transfer sheet is in a range from 30 to 150% based on the maximum area of the print surface of the transfer-receiving material to which the transferable scratch layer is to be transferred.

31. The method of producing a scratch print product according to Claim 26, wherein said transferable scratch layer after being transferred to the transfer-receiving material has a level of HB or less as the pencil scratch value prescribed in the handwriting method of JIS K 5400.

32. The method of producing a scratch print product according

to Claim 26, wherein said transferable scratch layer further comprises a first peeling layer and has a multilayer structure in which at least said first peeling layer and said transferable scratch layer are disposed in this order from the side close to said substrate film.

33. The method of producing a scratch print product according to Claim 26, wherein said transferable scratch layer further comprises a pattern layer formed pattern-wise and has a multilayer structure in which at least said pattern layer and said hiding layer are disposed in this order from the side close to said substrate film.

34. The method of producing a scratch print product according to Claim 33, wherein said pattern layer is provided with patterns comprising a firm name, a logo or a specific mark.

35. The method of producing a scratch print product according to Claim 33, wherein, when the areas respectively occupied by said pattern layer and said hiding layer are compared with each other, the proportion of the area occupied by the pattern layer (pattern ratio) is in a range from 5 to 85% per 2 cm² of the transferred scratch layer.

36. The method of producing a scratch print product according to Claim 33, wherein said pattern layer contains at least one binder selected from a wax and a thermoplastic resin and/or a

coloring agent.

37. The method of producing a scratch print product according to Claim 33, wherein said transferable scratch layer further comprises a second peeling layer and has a multilayer structure in which at least said pattern layer, said second peeling layer and said hiding layer are disposed in this order from the side close to said substrate film.

38. The method of producing a scratch print product according to Claim 26, wherein said transferable scratch layer further comprises an adhesive layer and has a multilayer structure in which at least said hiding layer and said adhesive layer are disposed in this order from the side close to said substrate film.

39. The method of producing a scratch print product according to Claim 37, wherein said adhesive layer is primarily constituted of a rubber type resin.

40. The method of producing a scratch print product according to Claim 39, wherein said rubber type resin is at least one type selected from the group consisting of an ethylene/vinyl acetate copolymer resin, its modified product and a copolymer of an ethylene monomer, a vinyl acetate monomer and other monomers.

41. The method of producing a scratch print product according

to Claim 26, the method further comprising:

providing a protective layer transfer sheet, having a monolayer or multilayer structure transferable protective layer provided with a main protective layer protecting a print surface, on one surface of the substrate film;

overlapping the protective layer transfer sheet on the transfer-receiving material such that the transferable protective layer of the protective layer transfer sheet faces the print surface of the transfer-receiving material to transfer said transferable protective layer to the print surface by heating; and

thereafter transferring the transferable scratch layer of said scratch layer transfer sheet to the print surface.

42. The method of producing a scratch print product according to Claim 41, the method comprising:

providing a scratch layer transfer sheet provided with said transferable protective layer and said transferable scratch layer alternately side by side on one surface of the substrate film; and

thermally transferring the transferable protective layer and the transferable scratch layer to the print surface of said transfer-receiving material from the same scratch layer transfer sheet.

43. The method of producing a scratch print product according to Claim 41, wherein said main protective layer is primarily

constituted of at least a wax or a thermoplastic resin.

44. The method of producing a scratch print product according to Claim 41, wherein said transferable protective layer further comprises an adhesive layer and has a multilayer structure in which at least said main protective layer and said adhesive layer are disposed in this order from the side close to said substrate film.

45. The method of producing a scratch print product according to Claim 41, wherein said transferable protective layer further comprises a peeling layer and has a multilayer structure in which at least said peeling layer and said main protective layer are disposed in this order from the side close to said substrate film.

46. The method of producing a scratch print product according to Claim 26, the method further comprising;

providing an information recording thermal transfer sheet provided with a coloring agent transfer layer on one surface of the substrate film;

preparing said transfer-receiving material on which information is recorded in advance by overlapping the coloring agent transfer layer of the information recording thermal transfer sheet on the print surface of the transfer-receiving material on which no information is recorded such that the coloring agent transfer layer faces the print surface and by

transferring the coloring agent to the print surface by heating to record the information; and

thereafter transferring the transferable scratch layer of said scratch layer transfer sheet to the print surface.

47. The method of producing a scratch print product according to Claim 46, the method further comprising:

providing a scratch layer transfer sheet in which said coloring agent transfer layer and said transferable scratch layer are alternately provided side by side on one surface of the substrate film; and

thermally transferring the coloring agent and the transferable scratch layer to the print surface of said transfer-receiving material from the same scratch layer transfer sheet.

48. The method of producing a scratch print product according to Claim 46, wherein said coloring agent transfer layer contains a coloring agent which is optically distinguishable.

49. The method of producing a scratch print product according to Claim 46, wherein the color of said coloring agent transfer layer is different from the color of said transferable scratch layer.

50. The method of producing a scratch print product according to Claim 46, wherein said coloring agent transfer layer is a

heat meltable ink layer.

51. The method of producing a scratch print product according to Claim 50, wherein said heat meltable ink layer contains carbon black as a pigment.

52. The method of producing a scratch print product according to Claim 46, wherein the area of one partition of said coloring agent transfer layer is different from the area of one partition of said transferable scratch layer.

53. The method of producing a scratch print product according to Claim 26, wherein said scratch layer transfer sheet further comprises a transferable protective layer and a coloring agent transfer layer, wherein the coloring agent transfer layer, the transferable protective layer and the transferable scratch layer are alternately provided side by side in this order on the substrate film; the method further comprising:

preparing said transfer-receiving material on which information is recorded in advance by overlapping the coloring agent transfer layer of the scratch layer transfer sheet on the print surface of the transfer-receiving material on which no information is recorded such that the coloring agent transfer layer faces the print surface and the coloring agent is transferred to the print surface by heating to record the information;

overlapping the transferable protective layer of the same

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scratch layer transfer sheet on the print surface of the prepared transfer-receiving material such that the transferable protective layer faces the print surface to transfer said transferable protective layer to the print surface by heating; and

thereafter transferring the transferable scratch layer of the same scratch layer transfer sheet to the print surface.

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